```
Last login: Sat Mar 6 20:50:28 on ttys000
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 8.0.23 MySQL Community Server - GPL
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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql> create database lianxi01 character set utf8;
Query OK, 1 row affected, 1 warning (0.01 sec)
mysql> use lianxi01;
Database changed
mysql> create table product (
-> pid int,
-> pname varchar(20),
-> price double,
-> category_name varchar(32)
-> );
Ouerv OK. 0 rows affected (0.02 sec)
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(1,'联想电脑',5000,'电脑办公');
Query OK, 1 row affected (0.01 sec)
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(2,'海尔电脑',3000,'电脑办公');
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(3,'雷神电脑',5000,'电脑办公');
Query OK, 1 row affected (0.00 sec)
mysql>
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(4,'JACK JONES',800,'服装');
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(5,'真维斯',200,'服装');
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(6,'花花公子',440,'服装');
Query OK, 1 row affected (0.00 sec)
mysql> IMSERT INTO product(pid,pname,price,category_name) VALUES(7,'劲雷',2000,'服装');
Query OK, 1 row affected (0.00 sec)
mysql>
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(8,'番余儿',800,'女士用品');
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(9,'相宜本草',200,'女士用品');
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(10,'面霸',5,'女士用品');
Query OK, 1 row affected (0.01 sec)
mysql>
mysqls INSERT INTO product(pid,pname,price,category_name) VALUES(11,'雪碧',56,'饮料饮品');
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(12,'香飘飘奶茶',1,'饮料饮品');
Query OK, 1 row affected (0.01 sec)
mysql> mysql> mysql> INSERT INTO product(pid,pname,price,category_name) VALUES(13,'iPhone9',8000,NULL); Query OK, 1 row affected (0.00 sec)
mysql> select * from product;
     1 | 联想电脑脑
3 | 電神电脑
3 | 電神电脑
4 | JACK JONES
5 | 真维K JONES
5 | 真维K JONES
5 | 真维 JONES
7 | 动香宗 L
9 | 相雷響 飘 JA
11 | 電響 飘 JA
12 | 1 i i Phone9
                            13 rows in set (0.00 sec)
mysql> select pname, price from product;
```

+	-+		+
I pname	1	price	1
+	-+		+
I 联想电脑	1	5000	1
I 海尔电脑	1	3000	1
雷神电脑	1	5000	1
I JACK JONES	1	800	1
I 真维斯	1	200	1
I 花花公子	1	440	1
劲霸	1	2000	1
Ⅰ 香奈儿	1	800	1
相宜本草	1	200	1
I 面霸	1	5	1
雪碧	1	56	1
Ⅰ香飘飘奶茶	1	1	1
l iPhone9	1	8000	1
+	-+		+

13 rows in set (0.00 sec)

mysql> select pname as 'product\_name', price as 'product\_price'
-> from product;

	2 11 Oill produ		,	
1	product_name	i		
111111111	联想 电脑脑 细中神经 JACK JONES 真花 公 新 子	+	5000 3000 5000 800 200 440 2000 800	1
1	iPhone9	-1	8000	ı

13 rows in set (0.00 sec)

ysql> select distinct price from product;

my	ysqL> :	sete
+		-+
ı	price	1
+		-+
Ĺ	5000	1
Ĺ	3000	1
Ĺ	800	1
ı	200	1
Ĺ	440	1

```
| 2000 |
| 5 |
| 56 |
| 1 |
| 8000 |
```

+----+ 10 rows in set (0.00 sec)

mysql> select pname, price+10 from product;

ı	pname	1	price+10
۲		-+	+
ı	联想电脑	1	5010 I
ı	海尔电脑	1	3010 I
ı	雷神电脑	1	5010 I
ı	JACK JONES	1	810 I
ı	真维斯	1	210 I
ı	花花公子	1	450 I
ı	劲 霸	1	2010 I
ı	香奈儿	1	810 I
ı	相宜本草	1	210 I
ı	面霸	1	15 I
ı	雪碧	1	66 I
ı	香飘飘奶茶	1	11
ı	iPhone9	1	8010 I

13 rows in set (0.00 sec)

mysql> select \* from product -> where pname='花花公子';

+		+		+		+-		+
I	pid	ı	pname	- 1	price	1	category_	name I
+		+		+		+-		+
I	6	I	花花公子	- 1	440	1	服装	- 1
+		+-		+		+-		+

1 row in set (0.00 sec)

2 rows in set (0.01 sec)

mysql> select \* from product -> where price <> 800;

	-	•••	ici e pi ree o	000,				
+		+		+		+		-+
1 p	oid	1	pname	- 1	price	1	category_name	-1
+		+		+		+		-+
1	1	ī	联想电脑	- 1	5000	1	电脑办公	1
1	2	1	海尔电脑	- 1	3000	1	电脑办公	1
1	3	1	雷神电脑	- 1	5000	1	电脑办公	-1
1	5	1	真维斯	- 1	200	1	服装	1
1	6	1	花花公子	- 1	440	1	服装	1
1	7	1	劲 霸	- 1	2000	1	服装	1
1	9	1	相宜本草	- 1	200	1	女士用品	1
1	10	1	面霸	- 1	5	1	女士用品	-1
1	11	1	雪碧	- 1	56	1	饮料饮品	1
1	12	1	香飘飘奶茶	- 1	1	1	饮料饮品	1
1	13	1	iPhone9	- 1	8000	1	NULL	1
+		+		+		-+-		-+

11 rows in set (0.00 sec)

mysql> select \* from product 
-> where price > 60; 
| pid | pname | price | category\_name | 1 | 联想电脑 2 | 海尔电脑 3 | 雷神电脑 4 | JACK JONES 5 | 真维公 7 | 改謂 8 | 香宗儿 9 | 相宜本草 13 | i Phone9

mysql> select \* from product
-> where price between 200 and 1000;

+		+		+		+	+
Ιp	id	!	pname	- 1	price	1	category_name
+		+		+-		-+	+
1	4	1	JACK JONES	- 1	800	1	服装!
1	5	1	真维斯	- 1	200	1	服装
- 1	6	1	花花公子	- 1	440	1	服装
1	8	1	香奈儿	- 1	800	1	女士用品 1
1	9	1	相宜本草	- 1	200	1	女士用品 1
+		+		+		+	+
5 r	ows	i	n set (0.00	sec]	)		

mysql>
mysql> select \* from product

				price=2				=800;	
1	pid						•	category_name	1
i	4	ī	JACI	JONES	·+-	800	i.	服装	1
ī	5	ī	真组	斯	- 1	200	Ī	服装	-1
ı	8	1	香奈	ル	- 1	800	1	女士用品	-1
ī.	9	ī.	相肯	本草	- 1	200	ī	女士用品	-1

| 9 | 相宜本草 | +----+ 4 rows in set (0.00 sec)

mysql> select \* from product -> where pname like '香%';

+-		+-		+		+		+
			pname				category_nam	
+-		++		+		+-		+
1	8	1	香奈儿	- 1	800	1	女士用品	- 1
1	12	1	香飘飘奶茶	- 1	1	1	饮料饮品	- 1

2 rows in set (0.01 sec)

mysql> select \* from product

	p		,
+		+	++
I pid I			category_name
+		+	++
1 1 1	联想电脑	1 5000	Ⅰ 电脑办公 Ⅰ
4		4	4

1 row in set (0.00 sec)

```
| 13 | iPhone9 | 8000 | NULL |
    1 row in set (0.00 sec)
    1 | 联想电脑
2 | 海尔电脑
3 | 雷冲电脑
3 | 雷冲电脑
5 | 真体
6 | 花花公子
7 | 劲香
8 | 香疸
8 | 香疸
10 | 面雪詢
11 | 雪顯飘奶茶
                                                                                                                         | 5000 | 电脑介公 | 15000 | 电脑介公 | 5000 | 电脑介公 | 5000 | 电脑介公 | 5000 | 电脑介 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
    +----+
12 rows in set (0.00 sec)
    |-----
| pid | pname
                                                                                                                              | price | category_name |
                                                                                                                            13 rows in set (0.00 sec)
   mysql> select * from product
-> order by price desc, pid desc;
                                                                                   | price | category_name |
                  13 | iPhone9
3 | 雷神电脑
1 | EF | EF | EF |
2 | 海尔中电脑
7 | 勃勃宗儿 |
8 | 香河 |
4 | JACK JONES
6 | 花花公子
9 | 相宜地
5 | 真雪譜
11 | 雪譜
11 | 雪譜
12 | 香鸝 駅奶茶
                                                                                                                           | 1 8000 | NULL | 1 5000 | NULL | 1 500 | NULL | 1 1 | NULL | NULL | 1 50 | NULL 
    13 rows in set (0.00 sec)
    mysql> select distinct price from product
-> order by price desc;
      +----+
| price |
                8000 |
5000 |
3000 |
2000 |
800 |
440 |
200 |
56 |
5 |
1 |
    10 rows in set (0.00 sec)
    mysql> select count(*) from product;
    -----+
| count(*) |
+----+
    1 13 |
+-----+
1 row in set (0.00 sec)
    mysql>
mysql>
mysql> select count(pid) from product;
      | count(pid) |
           13 |
    1 row in set (0.00 sec)
    mysql>
mysql> select sum(price) from product;
    | sum(price) |
                           25502 |
    +-----
1 row in set (0.00 sec)
    mysql> select max(price) from product;
    | max(price) |
    1 mux(p) ----+

1 8000 |

+-----+

1 row in set (0.00 sec)
    mysal> select min(price) from product:
           min(price) |
             1 I
    1 row in set (0.00 sec)
    mysql>
mysql> select avg(price) from product;
    l avg(price)
    | 1961.6923076923076 |
    1 row in set (0.01 sec)
```

1 row in set (0.00 sec)

mysql> select category\_name, count(pid)

-> from product
-> group by category\_name;

category_name	count(pi	d)
+	+	+
电脑办公	1	3
Ⅰ服装	1	4 I
I 女士用品	1	3 I
I饮料饮品	1	2
I NULL	1	1 I
+	+	+
5 rows in set (0	0.00 sec)	

mysql> select category\_name, count(pid)
-> from product
-> group by category\_name
-> having count(pid)>1;

category_name	count(pid)	1
+ e h h h h h h h h h h h h h h h h h h	3   4   3   2	1 1 1 1
4 rows in set (	0.00 sec)	-+

mysql>